

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: HU et al.

Application Serial No.: 09/257,272

Art Unit: 1647

Filed: February 25, 1999

Examiner: Saoud, C.

For: Vascular Endothelial Growth Factor 2

Attorney Docket No.: PF112P2D2

**PRELIMINARY REMARKS**

A detailed table of the claims currently pending in U.S. Application No. 09/257,272 is presented below. Currently, 27 independent claims are pending. These claims are 33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 342, 347, 352, 357, 368, 379, and 390.

Each independent claim has a series of dependent claims, presented as cassettes. Each cassette contains 4, 10, or 15 dependent claims. The smallest cassette containing 4 dependent claims depends from claims 337, 342, 347, and 352 and recites the following language:

- 95% identical to Y (where Y is defined in the independent claim)
- protein of Claim X fused to a heterologous polypeptide
- a homodimer
- glycosylated protein

The cassettes containing 10 dependent claims, which depend from claims 357, 368, 379, and 390, recite the language of all of the dependent claims mention above, in addition to the following language:

- method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of claim X, wherein the patient has wound, tissue, or bone damage
- the method above, wherein the patient has ischemia
- the method above, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease
- the method above, wherein the patient has had a myocardial infarction
- the method above, wherein the method stimulates endothelial cell proliferation\*
- the method above, wherein the patient is a human

The cassettes containing 15 dependent claims, which depend from claims 33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, and 321, recite the language of all of the aforementioned dependent claims except the dependent method claim marked by an asterisk. This cassette further recites the following language:

- method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim X, wherein the patient has wound, tissue, or bone damage
- the method above, wherein the patient has ischemia
- the method above, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease
- the method above, wherein the patient has had a myocardial infarction
- the method above, wherein the method stimulates angiogenesis
- the method above, wherein the patient is a human

Claim No.	Depended Upon X:	Language
33	Independent	An isolated protein comprising a first protein at least 90% identical to a mature portion of a second protein comprising the amino acid sequence of SEQ ID NO:2.
49	Independent	An isolated protein comprising a first protein at least 90% identical to a mature portion of a second protein comprising the amino acid sequence of SEQ ID NO:4.
65	Independent	An isolated protein comprising a first protein at least 90% identical to a proprotein portion of a second protein comprising the amino acid sequence of SEQ ID NO:2.
81	Independent	An isolated protein comprising a first protein at least 90% identical to a proprotein portion of a second protein comprising the amino acid sequence of SEQ ID NO:4.
97	Independent	An isolated protein comprising a first protein at least 90% identical to a mature portion of a second protein encoded by the cDNA contained in ATCC Deposit No. 75698.
113	Independent	An isolated protein comprising a first protein at least 90% identical to a mature portion of a second protein encoded by the cDNA contained in ATCC Deposit No. 97149.
129	Independent	An isolated protein comprising a first protein at least 90% identical to a proprotein portion of a second protein encoded by the cDNA contained in ATCC Deposit No. 75698.

Claim No.	Depended Upon X:	Language
145	Independent	An isolated protein comprising a first protein at least 90% identical to a proprotein portion of a second protein encoded by the cDNA contained in ATCC Deposit No. 97149.
161	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein encoded by the cDNA contained in ATCC Deposit No. 75698.
177	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein encoded by the cDNA contained in ATCC Deposit No. 97149.
193	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein comprising amino acids 71 to 396 of SEQ ID NO:2.
209	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein comprising amino acids 47 to 396 of SEQ ID NO:2.
225	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein comprising amino acids 24 to 396 of SEQ ID NO:2.
241	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein comprising amino acids 1 to 396 of SEQ ID NO:2.
257	Independent	An isolated protein comprising a first protein at least 90% identical to a second protein comprising amino acids -23 to 396 of SEQ ID NO:2.
273	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of SEQ ID NO:2, wherein said fragment has endothelial cell proliferative activity.
289	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of SEQ ID NO:4, wherein said fragment has endothelial cell proliferative activity.
305	Independent	An isolated protein comprising a first

Claim No.	Depended Upon X:	Language
		protein at least 90% identical to a protein fragment encoded by the cDNA contained in ATCC Deposit No. 75698, wherein said fragment has endothelial cell proliferative activity.
321	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149, wherein said fragment has endothelial cell proliferative activity.
337	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of at least 30 contiguous amino acids of SEQ ID NO:2.
342	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of at least 30 contiguous amino acids encoded by the cDNA contained in ATCC Deposit No. 97149.
347	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of at least 50 contiguous amino acids of SEQ ID NO:2.
352	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of at least 50 contiguous amino acids encoded by the cDNA contained in ATCC Deposit No. 97149.
357	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of SEQ ID NO:2, wherein said fragment has angiogenic activity.
368	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment of SEQ ID NO:4, wherein said fragment has angiogenic activity.
379	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment encoded by the

Claim N .	Depended Upon X:	Language
		cDNA contained in ATCC Deposit No. 75698, wherein said fragment has angiogenic activity.
390	Independent	An isolated protein comprising a first protein at least 90% identical to a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149, wherein said fragment has angiogenic activity.
34, 50, 66, 82, 98, 114, 130, 146, 162, 178, 194, 210, 226, 242, 258, 274, 290, 306, 322, 338, 343, 348, 353, 358, 369, 380, 391	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 342, 347, 352, 357, 368, 379, 390	The isolated protein of claim X, wherein said first protein is at least 95% identical to Y (where Y is defined in the independent claim).
35, 51, 67, 83, 99, 115, 131, 147, 163, 179, 195, 211, 227, 243, 259, 275, 291, 307, 323, 339, 344, 349, 354, 359, 370, 381, 392	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 342, 347, 352, 357, 368, 379, 390	A fusion protein comprising the isolated protein of Claim X fused to a heterologous polypeptide.
36, 52, 68, 84, 100, 116, 132, 148, 164, 180, 196, 212, 228, 244, 260, 276, 292, 308, 324, 340, 345, 350, 355, 360, 371, 382, 393	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 342, 347, 352, 357, 368, 379, 390	The isolated protein of Claim X comprising a homodimer.
37, 53, 69, 85, 101, 117, 133, 149, 165, 181, 197, 213, 229, 245, 261, 277, 293, 309, 325, 341, 346, 351, 356, 361, 372, 383, 394	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 342, 347, 352, 357, 368, 379, 390	The isolated protein of Claim X which is glycosylated.
38, 54, 70, 86, 102, 118, 134, 150, 166, 182, 198, 214, 230, 246, 262, 278, 294, 310, 326	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321,	A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the isolated protein of claim X, wherein the patient has wound, tissue, or bone damage.
39, 45, 55, 61, 71, 77, 87, 93, 103, 109, 119, 125, 135, 141,	38, 44, 54, 60, 70, 76, 86, 92, 102, 108, 118, 124, 134, 140, 150, 156, 166,	The method of claim X, wherein said patient has ischemia.

<b>Claim N .</b>	<b>Depended Upon X:</b>	<b>Language</b>
151, 157, 167, 173, 183, 189, 199, 205, 215, 221, 231, 237, 247, 253, 263, 269, 279, 285, 295, 301, 311, 317, 327, 333, 363, 374, 385, 396	172, 182, 188, 198, 204, 214, 220, 230, 236, 246, 252, 262, 268, 278, 284, 294, 300, 310, 316, 326, 332, 362, 373, 384, 395	
40, 46, 56, 62, 72, 78, 88, 94, 104, 110, 120, 126, 136, 142, 152, 158, 168, 174, 184, 190, 200, 206, 216, 222, 232, 238, 248, 254, 264, 270, 280, 286, 296, 302, 312, 318, 328, 334, 364, 375, 386, 397	38, 44, 54, 60, 70, 76, 86, 92, 102, 108, 118, 124, 134, 140, 150, 156, 166, 172, 182, 188, 198, 204, 214, 220, 230, 236, 246, 252, 262, 268, 278, 284, 294, 300, 310, 316, 326, 332, 362, 373, 384, 395	The method of claim X, wherein said patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease.
41, 47, 57, 63, 73, 79, 89, 95, 105, 111, 121, 127, 137, 143, 153, 159, 169, 175, 185, 191, 201, 207, 217, 223, 233, 239, 249, 255, 265, 271, 281, 287, 297, 303, 313, 319, 329, 335, 365, 376, 387, 398	38, 44, 54, 60, 70, 76, 86, 92, 102, 108, 118, 124, 134, 140, 150, 156, 166, 172, 182, 188, 198, 204, 214, 220, 230, 236, 246, 252, 262, 268, 278, 284, 294, 300, 310, 316, 326, 332, 362, 373, 384, 395	The method of claim X, wherein said patient has had a myocardial infarction.
42, 58, 74, 90, 106, 122, 138, 154, 170, 186, 202, 218, 234, 250, 266, 282, 298, 314, 330	38, 54, 70, 86, 102, 118, 134, 150, 166, 182, 198, 214, 230, 246, 262, 278, 294, 310, 326,	The method of claim X, wherein the method stimulates angiogenesis.
43, 48, 59, 64, 75, 80, 91, 96, 107, 112, 123, 128, 139, 144, 155, 160, 171, 176, 187, 192, 203, 208, 219, 224, 235, 240, 251, 256, 267, 272, 283, 288, 299, 304, 315, 320, 331, 336, 367, 378, 389, 400	38, 44, 54, 60, 70, 76, 86, 92, 102, 108, 118, 124, 134, 140, 150, 156, 166, 172, 182, 188, 198, 204, 214, 220, 230, 236, 246, 252, 262, 268, 278, 284, 294, 300, 310, 316, 326, 332, 362, 373, 384, 395	The method of claim X, wherein the patient is human.
44, 60, 76, 92, 108, 124, 140, 156, 172, 188, 204, 220, 236,	33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273,	A method of stimulating angiogenesis in a patient comprising administering to the patient the isolated protein of

Claim N .	Depended Upon X:	Language
252, 268, 284, 300, 316, 332, 362, 373, 384, 395	289, 305, 321, 357, 368, 379, 390	claim X, wherein the patient has a wound, tissue, or bone damage.
366, 377, 388, 399	362, 373, 384, 395	The method of claim X, wherein the method stimulates endothelial cell proliferation.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hu et al.

Application Serial No.: 09/219,442

Art Unit: 1647

Filed: December 23, 1998

Examiner: Saoud, C.

For: Vascular Endothelial Growth Factor 2

Attorney Docket No.: PF112P2D1

**PRELIMINARY REMARKS**

A detailed table of the claims currently pending in U.S. Application No. 09/219,442 is presented below. Currently, 21 independent claims are pending. These claims are 33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, and 427.

Each independent claim has a series of dependent claims, presented as cassettes. Each cassette contains 11, 19, or 20 dependent claims. The smallest cassette containing 11 dependent claims depends from claim 133 and recites the following language, noting the "Y" is defined in the independent claim:

- wherein Y is recovered from a natural source
- wherein Y is recovered from a recombinant host cell engineered to express Y
- wherein Y is recovered from a mammalian cell
- wherein Y is recovered from a bacterial cell
- wherein Y is recovered from a baculovirus cell
- wherein Y is recovered from a yeast cell
- wherein Y is recovered from chromatography
- wherein Y is recovered by an antibody
- wherein Y is a homodimer
- wherein Y is fused to a heterologous polypeptide
- purified Y of claim X and a pharmaceutically acceptable carrier

The cassettes containing 19 dependent claims, which depend from claims 33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 347, 367, 387, 407, and 427, recite the language of all of the dependent claims mention above, in addition to the following language, noting the "Y" is defined in the independent claim:

- method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient purified Y of claim X, wherein the patient has wound, tissue, or bone damage
- method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient purified Y of claim X, wherein the patient has ischemia



- method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient purified Y of claim X, wherein the patient has had a myocardial infarction
- method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient purified Y of claim X, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease
- method of stimulating angiogenesis in a patient comprising administering to the patient purified Y of claim X, wherein the patient has wound, tissue, or bone damage
- method of stimulating angiogenesis in a patient comprising administering to the patient purified Y of claim X, wherein the patient has ischemia
- method of stimulating angiogenesis in a patient comprising administering to the patient purified Y of claim X, wherein the patient has had a myocardial infarction
- method of stimulating angiogenesis in a patient comprising administering to the patient purified Y of claim X, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease

The cassettes containing 20 dependent claims, which depend from claims 305 and 326, recite the language of all of the aforementioned dependent claims, in addition to the following language, noting the "Y" is defined in the independent claim:

- wherein Y is at least 50 contiguous amino acids of Z (where Z is also defined in the independent claim)

Claim No.	Depended Upon X:	Language
33	Independent	A purified mature protein produced by the method comprising: (a) expressing a mature protein of a polypeptide comprising the amino acid sequence of SEQ ID NO:4 from a host cell; and (b) recovering said mature protein.
53	Independent	A purified proprotein produced by the method comprising: (a) expressing a proprotein of the purified proprotein comprising the amino acid sequence of SEQ ID NO:4 from a host cell; and (b) recovering said proprotein.
73	Independent	A purified mature protein produced by the method comprising: (a) expressing a mature protein encoded by the cDNA contained in ATCC Deposit Nos. 97149 from a host cell; and (b) recovering said mature protein.

93	Independent	A purified proprotein produced by the method comprising: (a) expressing a proprotein encoded by the cDNA contained in ATCC Deposit Nos. 97149 from a host cell; and (b) recovering said proprotein.
113	Independent	A purified protein produced by the method comprising: (a) expressing a protein encoded by the cDNA contained in ATCC Deposit Nos. 97149 from a host cell; and (b) recovering said protein.
133	Independent	A purified protein produced by the method comprising: (a) expressing a protein comprising amino acids 131 to 144 of SEQ ID NO:2 from a host cell; and (b) recovering said protein.
145	Independent	A purified protein produced by the method comprising: (a) expressing a protein comprising amino acids 71 to 396 of SEQ ID NO:2 from a host cell; and (b) recovering said protein.
165	Independent	A purified protein produced by the method comprising: (a) expressing a protein comprising amino acids 24 to 396 of SEQ ID NO:2 from a host cell; and (b) recovering said protein.
185	Independent	A purified protein produced by the method comprising: (a) expressing a protein comprising amino acids 1 to 396 of SEQ ID NO:2 from a host cell; and (b) recovering said protein.
205	Independent	A purified protein produced by the method comprising: (a) expressing a protein comprising amino acids -23 to 396 of SEQ ID NO:2 from a host cell; and (b) recovering said protein.

225	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment of SEQ ID NO:2 from a host cell, wherein the protein fragment has angiogenic activity; and (b) recovering said protein.
245	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149 from a host cell, wherein the protein fragment has angiogenic activity; and (b) recovering said protein.
265	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment of SEQ ID NO:2 from a host cell, wherein the protein fragment has endothelial cell proliferative activity; and (b) recovering said protein.
285	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit No. 97149 from a host cell, wherein the protein fragment has endothelial cell proliferative activity; and (b) recovering said protein.
305	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment of at least 30 contiguous amino acids of SEQ ID NO:2 from a host cell; and (b) recovering said protein.
326	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment of at least 30 contiguous amino acids of contained in ATCC Deposit No. 97149 from a host cell; and (b) recovering said protein.

347	Independent	A purified mature protein produced by the method comprising: (a) expressing a mature protein encoded by the cDNA contained in ATCC Deposit Nos. 75698 from a host cell; and (b) recovering said mature protein.
367	Independent	A purified proprotein produced by the method comprising: (a) expressing a proprotein encoded by the cDNA contained in ATCC Deposit Nos. 75698 from a host cell; and (b) recovering said proprotein.
387	Independent	A purified protein produced by the method comprising: (a) expressing a protein encoded by the cDNA contained in ATCC Deposit Nos. 75698 from a host cell; and (b) recovering said protein.
407	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit Nos. 75698 from a host cell, wherein said protein fragment has angiogenic activity; and (b) recovering said protein fragment.
427	Independent	A purified protein fragment produced by the method comprising: (a) expressing a protein fragment encoded by the cDNA contained in ATCC Deposit Nos. 75698 from a host cell, wherein said protein fragment has endothelial cell proliferative activity; and (b) recovering said protein fragment.
34, 54, 74, 94, 114, 134, 146, 166, 186, 206, 226, 246, 266, 286, 306, 327, 348, 368, 388, 408, 428	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a natural source (where Y is defined in the independent claim).

35, 55, 75, 95, 115, 135, 147, 167, 187, 207, 227, 247, 267, 287, 307, 328, 349, 369, 389, 409, 429	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a recombinant host cell engineered to express the Y (where Y is defined in the independent claim).
36, 56, 76, 96, 116, 136, 148, 168, 188, 208, 228, 248, 268, 288, 308, 329, 350, 370, 390, 410, 430	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a mammalian cell (where Y is defined in the independent claim).
37, 57, 77, 97, 117, 137, 149, 169, 189, 209, 229, 249, 269, 289, 309, 330, 351, 371, 391, 411, 431	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a bacterial cell (where Y is defined in the independent claim).
38, 58, 78, 98, 118, 138, 150, 170, 190, 210, 230, 250, 270, 290, 310, 331, 352, 372, 392, 412, 432	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a baculovirus cell (where Y is defined in the independent claim).
39, 59, 79, 99, 119, 139, 151, 171, 191, 211, 231, 251, 271, 291, 311, 332, 353, 373, 393, 413, 433	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered from a yeast cell (where Y is defined in the independent claim).
40, 60, 80, 100, 120, 140, 152, 172, 192, 212, 232, 252, 272, 292, 312, 333, 354, 374, 394, 414, 434	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered by chromatography (where Y is defined in the independent claim).
41, 61, 81, 101, 121, 141, 153, 173, 193, 213, 233, 253, 273, 293, 313, 334, 355, 375, 395, 415, 435	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is recovered by an antibody (where Y is defined in the independent claim).
42, 62, 82, 102, 122, 142, 154, 174, 194, 214, 234, 254, 274, 294, 315, 336, 356, 376, 396, 416, 436	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is a homodimer (where Y is defined in the independent claim).
43, 63, 83, 103, 123, 143, 155, 175, 195, 215, 235, 255, 275, 295, 316, 337, 357, 377, 397, 417, 437	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	The purified Y of claim X, wherein Y is fused to a heterologous polypeptide (where Y is defined in the independent claim).

44, 64, 84, 104, 124, 144, 156, 176, 196, 216, 236, 256, 276, 296, 317, 338, 358, 378, 398, 418, 438	33, 53, 73, 93, 113, 133, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A composition comprising the purified Y of claim X and a pharmaceutically acceptable carrier (where Y is defined in the independent claim).
45, 65, 85, 105, 125, 157, 177, 197, 217, 237, 257, 277, 297, 318, 339, 359, 379, 399, 419, 439	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has a wound, tissue, or bone damage (where Y is defined in the independent claim).
46, 66, 86, 106, 126, 158, 178, 198, 218, 238, 258, 278, 298, 319, 340, 360, 380, 400, 420, 440	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has ischemia (where Y is defined in the independent claim).
47, 67, 87, 107, 127, 159, 179, 199, 219, 239, 259, 279, 299, 320, 341, 361, 381, 401, 421, 441	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has had a myocardial infarction (where Y is defined in the independent claim).
48, 68, 88, 108, 128, 160, 180, 200, 220, 240, 260, 280, 300, 321, 342, 362, 382, 402, 422, 442	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating proliferation of endothelial cells in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease (where Y is defined in the independent claim).
49, 69, 89, 109, 129, 161, 181, 201, 221, 241, 261, 281, 301, 322, 343, 363, 383, 403, 423, 443	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating angiogenesis in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has a wound, tissue, or bone damage (where Y is defined in the independent claim).

50, 70, 90, 110, 130, 162, 182, 202, 222, 242, 262, 282, 302, 323, 344, 364, 384, 404, 424, 444	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating angiogenesis in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has ischemia (where Y is defined in the independent claim).
51, 71, 91, 111, 131, 163, 183, 203, 223, 243, 263, 283, 303, 324, 345, 365, 385, 405, 425, 445	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating angiogenesis in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has had a myocardial infarction (where Y is defined in the independent claim).
52, 72, 92, 112, 132, 164, 184, 204, 224, 244, 264, 284, 304, 325, 346, 366, 386, 406, 426, 446	33, 53, 73, 93, 113, 145, 165, 185, 205, 225, 245, 265, 285, 305, 326, 347, 367, 387, 407, 427	A method of stimulating angiogenesis in a patient comprising administering to the patient the purified Y of claim X, wherein the patient has coronary artery disease, peripheral vascular disease, or CNS vascular disease (where Y is defined in the independent claim).
314, 335	305, 326	The purified Y of claim X, wherein Y is at least 50 contiguous amino acids of Z (where Y and Z are defined in the independent claim).